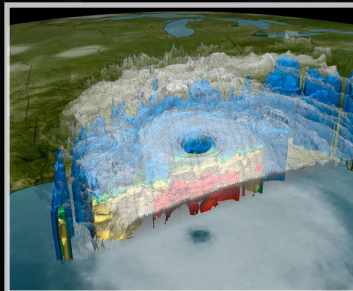
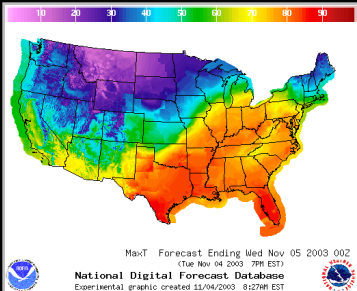
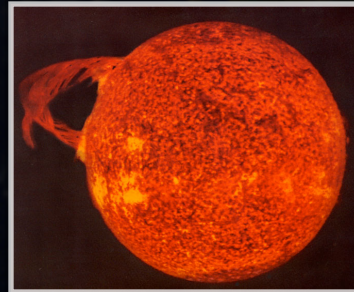
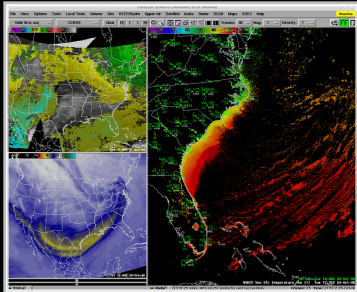


# The National Weather Service: Agency Update



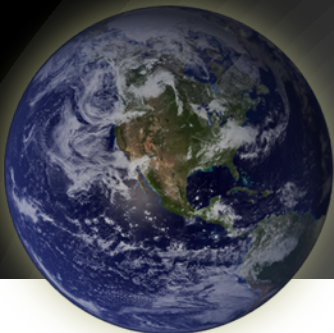
**Dr. William M. Lapenta**

Director, National Centers for Environmental Prediction

NOAA/National Weather Service

Space Weather Workshop

27 April 2016



# NWS Strategic Outcome: A Weather-Ready Nation

- Becoming a Weather-Ready Nation is about building community resiliency in the face of increasing vulnerability to extreme weather, water & climate events

## ***“Ready, Responsive, Resilient”***

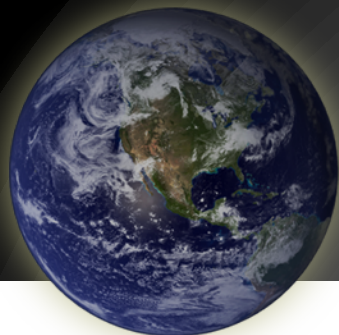
- Requires NWS to:
  - Fully integrate our field structure to produce:
    - *Better forecasts and warnings*
    - *Consistent products and services*
    - *Actionable environmental intelligence*
- Address the “last mile” that connects forecast to critical national, state and location decisions
  - *Provide Impact-based Decision Support Services (IDSS)*
  - *Deliver through multiple and reliable dissemination pathways*
  - *Work with partners, including embedding NWS in Emergency Operations Centers and incorporating Social Sciences, to gain the public’s needed response*



**We have 2625  
WRN Ambassadors**

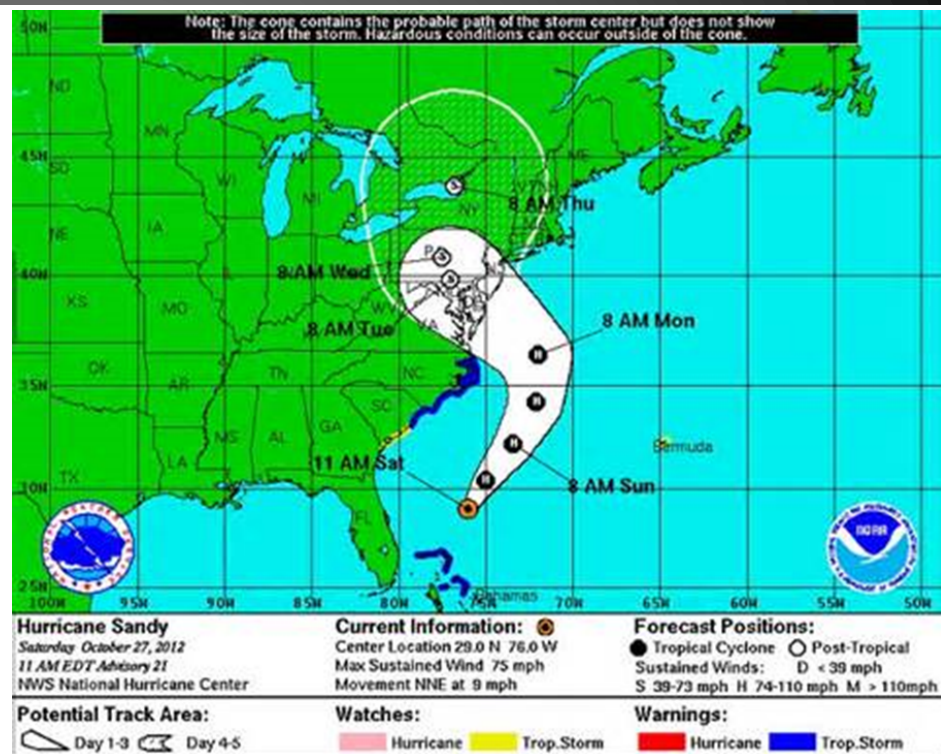
***Involves entire US Weather, Water and Climate Enterprise WORKING TOGETHER  
to achieve far-reaching national preparedness for weather events***





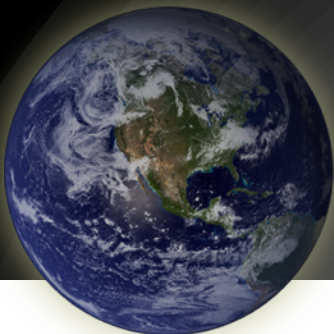
# Tom Geyer: The \$\$ Chart

- What's happening?
- What's the impact?
- What are the proposed courses of action?
- What are the risks?



COMMUNICATION with decision makers: “we don’t want a map discussion”

Impact-based Decision Support Services (IDSS): going the last mile!



# The Job Doesn't End with Forecasts and Warnings

## **“What is a Good Forecast? An Essay on the Nature of Goodness in Weather Forecasting”**

*by Allan H. Murphy; Weather and Forecasting (June 1993)*

***“First, it should be understood that forecasts possess no intrinsic value. They acquire value through their ability to influence the decisions made by users of the forecasts.”***





# Realizing Intrinsic Value

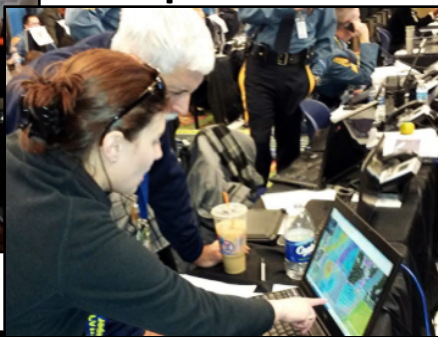
*Intrinsic Value is realized through providing Impact-Based Decision Support Services (IDSS)*

Generating forecasts and warnings + Connecting those forecasts/warnings with impacts = **IDSS**



The best hydrometeorological forecasting in the world

Practice, practice, practice!



Develop relationships/  
know partner needs



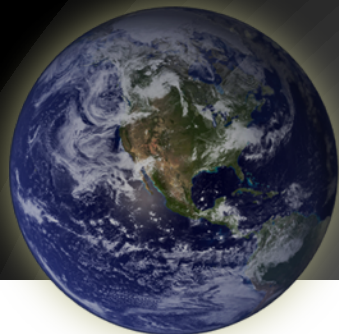
Embed



Trust



“Ready, Responsive, Resilient”



# Connecting All the Pieces

## January 2016 Blizzard Timeline

Jan 17 & 18

Medium Range products highlight snowstorm threat

Jan 19

Medium Range products highlight snowstorm threat

2 pm:  
NWS Collaboration call focused on messaging and strategy

Several national media interviews

Jan 20

8:30 am: NWS briefs FEMA HQ

Numerous national media interviews

Blizzard Watches Issued

Jan 21

8:30 am: NWS briefs FEMA HQ

Coordination with state and local governments

1 pm: National Press Briefing



Jan 22

Collaboration to raise snowfall in NYC area

Schools and Government Close

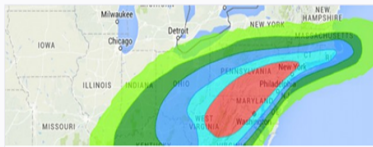
Flights Canceled

Roads Closed

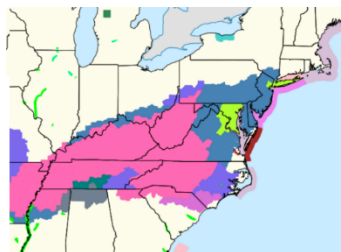
YAHOO!

Search Web

- Mail
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- Autos
- Fantasy
- Shopping



**Winter storm could impact 75 million people**  
Residents in at least a half-dozen states are being warned to prepare for potentially damaging winter weather. [Expected snow totals »](#) 1 - 5 of 85



### State of Emergency Declared:

- North Carolina
- Virginia
- West Virginia
- District of Columbia
- Maryland
- Pennsylvania
- New Jersey
- New York





# Connecting All the Pieces

## Long Island Expressway

2013 Snowstorm



The Past

2016 Snowstorm



With Decision Support



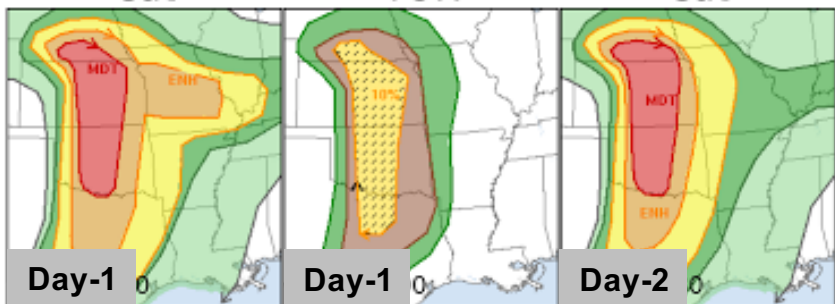


# Severe Weather Outbreak 27 April 2016..7-day lead

Cat

TOR

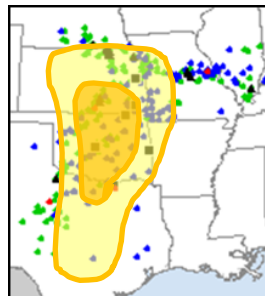
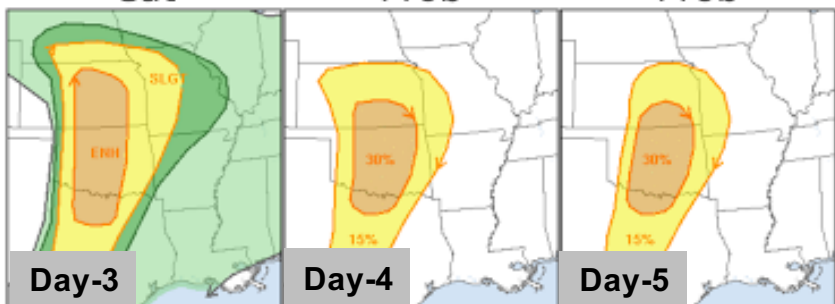
Cat



Cat

Prob

Prob



## **ALERT: Severe Thunderstorm Warning**

### Actions to Take:



Protect property from large hail.



Secure items that could be damaged by thunderstorm winds.

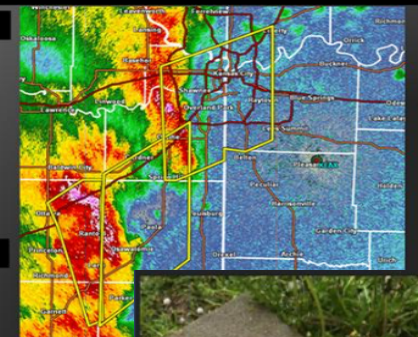
### Be Prepared For:



**Winds to 60 mph**  
May cause tree and structure damage.



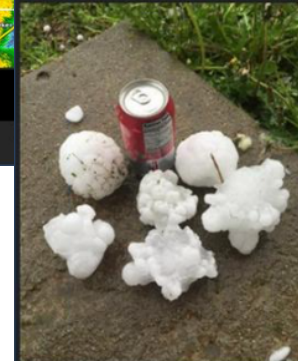
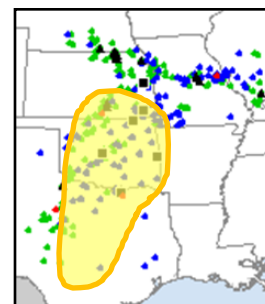
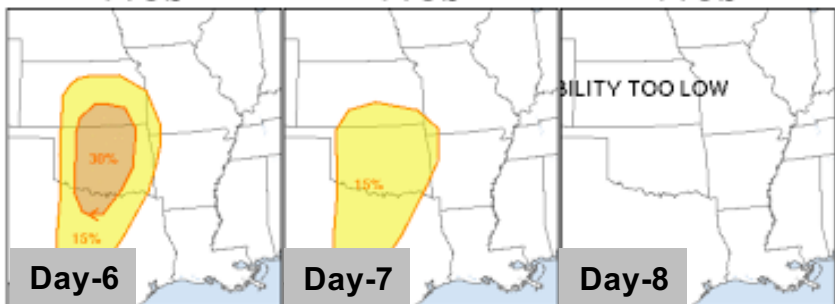
**Hail to 1"**  
Capable of damage to cars and other property.



Prob

Prob

Prob





# NWS Operational Workforce Analysis (OWA)

## Phase 1 Summary

OWA External  
Survey sent to  
**EMs**  
(Summer 2015)

Analysis of surveys  
and interviews  
(Fall 2015)

OWA identified the need for  
service consistency and role clarity  
for both internal operations and  
external IDSS  
(Winter 2015)

OWA Operating Model Workstream will focus on Impact-Based Decision Support Services (IDSS):

NWS employees embrace IDSS, and EMs use IDSS with high customer satisfaction

However, there are a number of definitions of IDSS, including in terms of what IDSS products are provided, how IDSS is delivered, when IDSS is delivered and to whom IDSS is being delivered

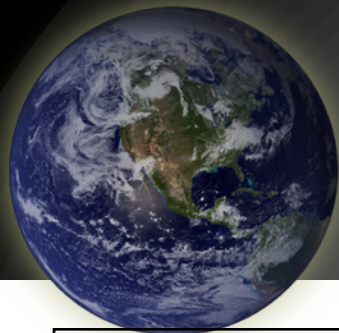
*"We have to know what the NWS can do for us, but **we also have to know what they can't do, or we'll ask them to do everything**, and, God help them, they'll try and give it to us"*



*"I trust my partners at NWS and **I know them** – the tone of their voice, the way they report out to us. And they know me."*





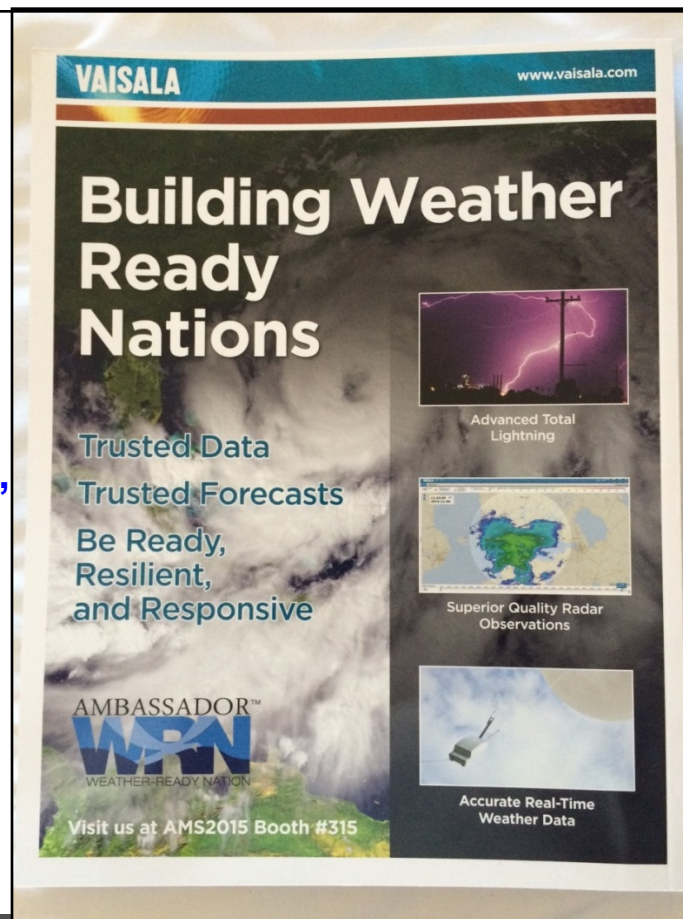


# WRN Ambassador Initiative

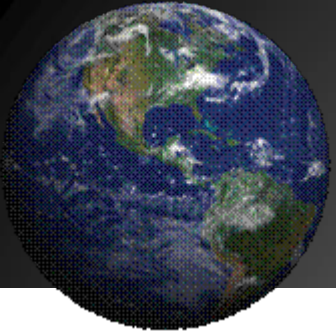
## *Benefits to WRN Ambassadors*

**Goal:** Collectively engage with external organizations that are committed to creating societal response that is equal to weather, water, and climate risks.

- ✓ Become part of a unified effort that will increase consistency in messaging
- ✓ Take partial ownership of the WRN storyboard or call-to-action
- ✓ Highlight their contributions
- ✓ Interact with NOAA in easier ways on data access, data formats, and new products/services
- ✓ Foster innovative opportunities with NOAA and other WRN Ambassadors
- ✓ Receive email notifications of events, safety campaigns, feedback opportunities







# WRN Ambassadors!

## Established partners...



**NORTHROP GRUMMAN**



**weather.com**

**UNISYS**



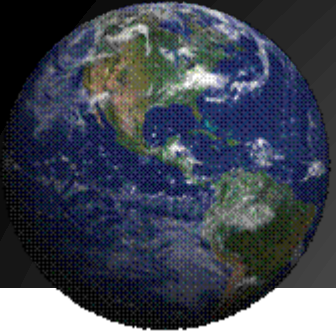
**FEMA**

**Global Security Systems**

**NCAR** | University Corporation  
**UCAR** | for Atmospheric Research



National Weather Service



# WRN Ambassadors POC



**Doug Hilderbrand**

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**301-427-6909 x175**

